## Remarks

Reconsideration of the above-identified application is respectfully requested.

The composition and method of treatment claims of the present invention define a synergy between a water-soluble β-(1,3) glucan and chitosan to show improvements in skin aging and skin roughness as shown in the example in the present application.

Claims 11-28 have been rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. The Examiner believes that the claims define subject matter that is not described in the specification in such a way in order to have one skilled in the art to understand it. The Examiner is specifically relating to the limitation "wherein the side chains comprise  $\beta$ -(1,3) linkages or 0-4 consecutive  $\beta$ -(1,6) linkages." The claims contained in this language have been amended. More specifically claims 11, 17 and 23. Therefore, this objection should be withdrawn.

Claims 11-28 have also been rejected under 35 U.S.C. §112, second paragraph for failing to particularly point out and distinctly claim the subject matter of the invention. In claims 11, 17 and 23 the Examiner has objected to the limitation "with naturally intact β-(1,3) sidechains." This language has also been deleted from the noted claims and therefore the objection should be withdrawn.

Not only have the claims been amended, but the claims have been amended to define specifically the invention in the preparation, and method of treating rough skin and method of treating aging of the skin. The water-soluble β-(1,3) glucan is specifically defined to distinguish it from prior art references. In addition, new claims have been added to define better the cosmetic preparation to show that all side chains of the glucan exclusively consist of  $\beta$ -(1,3) glucans. Support for this wording is found in the

application at page 2, lines 23-26. New claims have been added to show improved film forming properties of the chitosan use with the  $\beta$ -(1,3) glucan of the present invention. Support for the new claims is found on page 2, lines 14-15 of the application.

Claims 11-28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Zulli et al. reference in view of the Weitkemper reference and JP5-279239, All the references have been defined and characterized in previous Office Actions. Arguments distinguishing the claimed invention from the references have also been made in the prior prosecution of this application.

The Zulli et al. reference describes the water-soluble β-(1,3) glucan without (poly-)glucose sidechains. Not having the (poly) glucose is critical to the invention described in the Zulli et al. reference because it renders the glucan water-soluble. In distinction in the presently claimed invention, the glucan is a water-soluble β-(1,3) glucan with β-(1,3) glucan sidechains, preferably the sidechains consist exclusively of β-(1,3) sidechains. The sidechains of the presently claimed invention are not present in the Zulli et al. reference and applicants believe that these sidechains are central to the efficacy shown in the examples of this application. The claims have been amended to define the invention with this feature in mind.

The Weitkemper reference teaches production of hypocholesterolemic agents. It also mentions that chitosans are used in cosmetics. There is no motivation by one skilled in the art to read the Weitkemper et al. reference and to combine chitosans with cosmetic preparations defined and claimed in the present invention. As stated, the glucan described in the Zulli et al. reference is clearly divergent from the glucan described and claimed in the present invention. Therefore, one skilled in the art would

not be led to the presently claimed invention by combination of the Zulli et al. and Wietkemper reference, or the teachings of the references taken individually.

The currently claimed invention addresses and solves two problems not even. remotely suggested by the prior art: (1) the low efficiency of β-glucan as a skin vitalizer and (2) the less optimal film forming properties of chitosan. One skilled in the art would not combine the teachings of the references to reach the claimed invention. The conclusion could only be reached in a hindsight analysis of the prior art taken in view of the claimed invention. In investigating patentability, this hindsight analysis is improper.

Claim 11 has been rejected under the judicially created doctrine of obviousnesstype double patenting as being unpatentable over claims 8 and 9 of US Patent No. 6.497.865 and over claim 6 of US Patent No. 6, 497,863.

The claim in question has been amended. It's current language is not close to the language found in the above claims. Applicants submit that the new language of amended claim 11 is divergent from the above claims because no reference is made to the β-(1,6) linkages. This reference to the linkages is critical to the disclosure of the prior two patents. This alone renders the claim patentably distinct from the above-noted claims. Therefore, the rejection under the obviousness double patenting standard should be withdrawn.

It is respectfully submitted that the claims define patentable subject matter and

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meet the requirements of 35 U.S. Code. Therefore, an early Notice of Allowance for the above-identified application is respectfully requested.

Respectfully submitted,

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Date

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